L 14409-63 EWP(j)/EWT(m)/BDS AFFTC/ASD Pc-4 RM

ACCESSION NR: AP3003289 S/0138/63/000/006/0020/0026

AUTHORS: Sakhnovskiy, N. L.; Reznikovskiy, M. M.; Yevstratov, V. F.; Brodskiy, G. I.

TITLE: Effect of vulcanized rubber coatings and of test types on the type and amount of wear

SOURCE: Kauchuk i rezina, no. 6, 1963, 20-26

TOPIC TAGS: vulcanized rubber, abrasion, wear

ABSTRACT: In the present investigation various types of wear in car and truck tires were studied under road conditions and by testing machines. The findings were correlated with the kind of stock used for tire tread, supplemented by microscopic analysis of tread sections. It was found that on modern class A roads under standard speeds and loads the tread was wearing off after approximately 20 000 revolutions of the wheel, the surface of the tire being smooth and showing the so-called fatigue-type wear. On class B roads, on the other hand, the abrasive type of wear became predominant, while the presence of 1% sharp curves increased the wear fourfold. Other types of wear were also studied, and the relationship of the type and rate of wear of protective stock to the modulus and tensile and tear resistance

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L 14409-63
ACCESSION NR: AP3003289

charted. Experimental evidence was obtained that tear and wear causes an intensive destruction of the molecules of natural rubber, as evidenced by a 2.4 times increase in solubility in chloroform after 72 hours storage at 100C, and a tenfold increase following rubbing against a concrete surface for the same duration. Since the internal temperature in this case was 40C, it was concluded that the change in solubility was due to mechano-chemical destruction of the polymer. Further support of this point of view was obtained by subjecting natural rubber three times to a 450% stretch, which resulted in a sharply lowered hardness and resistance to tear. Orig. paper has: 7 figures and 3 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promy*shlennosti (Scientific Research Institute of the Tire Industry)

SUBMITTED: 00 DATE ACQ: 10Jul63 ENCL: 00

SUB CODE: MA NO REF SOV: 005 OTHER: 007

Card 2/2

BRODSKIY, G.I.

In the rubber section of the D.I. Mendeleev All-Union Chemical Society. Kauch. i rez. 22 no.7:50-51 Jl '63. (MIRA 16:8)

(Tires, Rubber)

KOZLOVA, O., doktor ekon. nauk, prof.; BRODSKIY, G.; DUDORIN, V.; MITIN, S.; NIKONOVA, L.; SALOMATIN, N.; BUDARINA, V., red.; KIRSANOVA, I., mlad. red.; ULANOVA, L., tekhn. red.

[Use of electronic computers in production control] Primenenie elektronno-vychislitel'nykh mashin v upravlenii proizvodstvom. [By] O.Kozlova i dr. Moskva, Izd-vo "Mysl'", 1964. 508 p. (MIRA 17:4)

L 4283-66 EWT(d)/EWT(m)/EPF(c)/EWP(v)/EWP(j)/EWP(k)/EWP(h)/T/EWP(l) RM/DJ
ACCESSION NR: AP5024107 UR/0138/65/000/009/0030/0034
678.063:539.431

AUTHOR: Kragel'skiy, I. V.; Reznikovskiy, M. M.; Brodskiy, G. I.; Nepomnyashchiy, Ye. F.

TITLE: Friction-contact fatigue of highly elastic materials

SOURCE: Kauchuk i rezina, no. 9, 1965, 30-34

TOPIC TAGS: rubber, fatigue test, mechanical fatigue, friction, test instrumentation

ABSTRACT: An experimental study of the contact fatigue of rubbers was carried out at the IMASh with a "Tsiklometr" instrument and at the NIIShP with a "PUPS" instrument. Both of these instruments and their operation are described. To establish the behavior of the friction-contact fatigue of rubbers, use was made of the elementary model of friction, consisting of a spherical indenter which simulates a projection of a rough surface and repeatedly deforms the rubber surface. Curves of contact fatigue were obtained for tread rubbers based on SKB, NK, Europrene, and an uncompounded NK-base rubber. The contact and volume fatigue were found to behave in similar fashion; in both cases, the fatigue resistance coefficients were similar. A comparison of the curves of the volume

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L 4283-66

ACCESSION NR: AP5024107 4

and friction-contact fatigue leads to the conclusion that in friction-contact fatigue, the breaking stress is the tensile stress of the surface layer due to the frictional force. The data obtained confirm the relationship between the wear resistance of rubber and its fatigue resistance. Orig. art. has: 6 figures and 2 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tire Industry); Gosudarstvennyy nauchno-issledovatel'skiy institut mashinovedeniya (State Scientific Research Institute of Machine Science) 44

SUBMITTED: 00 ENCL: 00 SUB CODE: MT

NO REF SOV: 009 OTHER: 002

Card 2/2 DP

L 35040-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM/GS

ACCESSION NR: AT5004094 S/0000/64/000/000/0021/0030

25
B+1

AUTHOR: Reznikovskiy, M. M.; Brodskiy, G. I.

TITLE: Characteristics of the wear mechanism of highly elastic materials

SOURCE: Nauchno-tekhnicheskoye soveshchaniye po friktsionnomu iznosu rezin. Moscow, 1961. Friktsionnyy iznos rezin (Frictional wear of rubber); sbornik statey. Moscow, Izd-vo Khimiya, 1964, 21-30

TOPIC TAGS: rubber, rubber research, wear resistance, rubber property

B

ABSTRACT: The wear mechanism in rubber is a complex process which depends on the combination of conditions which are characteristic of the operation at the point of friction. The basic problem in this study was separate consideration of the most characteristic mechanisms which correspond to the most important limiting conditions. Photomicrographs of three characteristic types of surface wear in rubber are given: abrasive wear, fatigue wear, and wear by rolling. The third type of wear results from the destruction of the surface layer of rubber by multiple deformations of surface irregularities. This type of wear is characteristic of highly elastic materials and does not occur with solids. Orig. art. has: 5 figures, 2 tables and 3 formulas.

Card 1/4

L 35040-65
ACCESSION NR: AP5004094

ASSOCIATION: none

SUBMITTED: 05Aug64 ENCL: 002 SUB CODE: MT

NO REF SOV: 006 OTHER: 007

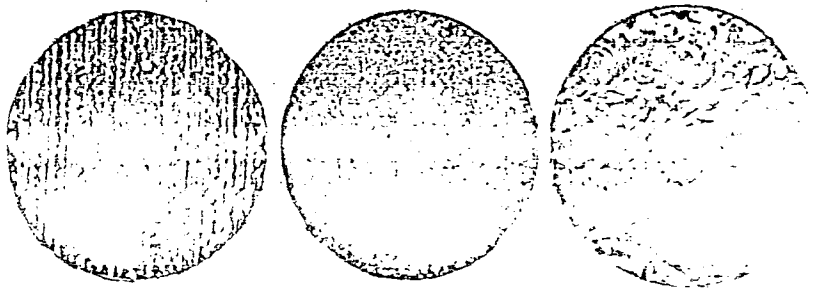
Card 2/4

L 35040-65

ACCESSION NR: AT5004094

0

ENCLOSURE: 01



(a) (b) (c)

Fig. 1

Characteristic wear of rubber under different wear conditions

a- abrasive wear; b- fatigue wear; c- rolling type wear

Card 3/4

L 35040-65
ACCESSION NR: AT5004094

ENCLOSURE: 02

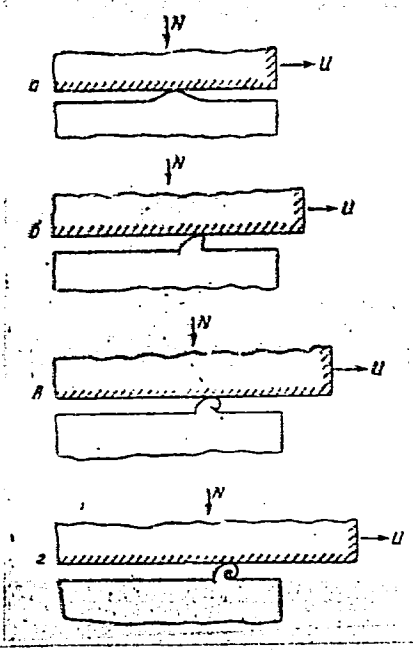


Fig. 2
Different stages of rolling type wear when rubber is rubbed against a smooth antibody

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L 30034-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM/GS

35

ACCESSION NR: AT5004099

AUTHOR: Brodskiy, G.I.; Reznikovskiy, M.M.

TITLE: A study of the role of certain non-mechanical factors in the [illegible] rubber

SOURCE: Nauchno-tekhnicheskoye soveshchaniye po friktsionnomu iznosu rezin, Moscow, 1961. Friktsionnyy iznos rezin (Frictional wear of rubber); sbornik statey. Moscow, Izd-vo Khimiya, 1964, 95-106

TOPIC TAGS: natural rubber, synthetic rubber, rubber wear, frictional wear, rubber [illegible] electrostatic charge, rubber filler [illegible] rubber, antioxidant

ABSTRACT: The effect of abrasive surfaces, of atmospheric oxygen [illegible] charges on the wear of natural and synthetic rubbers was determined [illegible] against various surfaces on a Dunlop [illegible] type [illegible] butadiene-styrene copolymer) filled with 50% carbon black of various types. Abrasion of natural or synthetic rubbers was determined in air, nitrogen or argon, in the presence or absence of antioxidants and with various carbon black fillers. The electro-

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ACCESSION NR: AT5004099

static potential of the specimen during wear tests on Grasseli or Dunlop [illegible] testers was measured with static voltmeters and the resistance of the contact resistance between rubber and friction surface was [illegible]

black was thermally pretreated at [illegible]

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L 30094-65

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ACCESSION NR: AT5004099

electrostatic potential (ESP) generated during friction and wear was measured on natural

other studied conditions on wear indicated the need for

itions in testing of tires for wear. "N. L. Sakhnovskiy and T. S.

SUB CODE: MI

NO REF SOV: 009 OTHER:

Card

EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 GS/RM
ACCESSION NR: AT5004104 S/0000/64/000/000/0183/0191

AUTHOR: Reznikovskiy, M. M.; Goloskov, E. I.; Atlas, E. N.; Shcherbach, E. V.; Brodskiy, G. I.; Merezhannyy, S. B.

TITLE: New abrasion tester for rubber under rolling contact

SOURCE: Nauchno-tekhnicheskoye soveshchaniye po friktsionnomu iznosu rezin. Moskow, 1961. Friktsionnyy iznos rezin (Frictional wear of rubber); sbornik statey. Moscow, Izd-vo Khimiya, 1964, 183-191

TOPIC TAGS: rubber wear, rubber abrasion, frictional wear, abrasion tester

ABSTRACT: An abrasion tester for rubber under rolling contact with controlled slippage on renewable abrasive surfaces and its application are described. The apparatus was developed in the NII shinnoy promyshlennosti (Tire industry scientific research institute). A rotating ring-shaped specimen of [illegible] driven an abrasive drum by friction contact, and the slippage is controlled by the brake force applied to the drum as shown in Fig. [illegible] closure. Samples are prepared by vulcanization in a special [illegible] tested at a given slippage S and given friction force, F, at given slippage

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L 40563-65
ACCESSION NR: AT5004104

given load N on the specimen, or at given friction force and given load. The testing procedure is described in detail. A formula is given for preparing a standard vulcanizate, used for testing the abrasive capacity of the renewable friction surface. Wear is calculated by presented equations from measured values as volumetric loss or as the ratio of volumetric loss to the work (kilowatt-hr.) required to [illegible] fric. srf. has: 2 figures and 5 formulas.

ASSOCIATION: None

SUBMITTED: 05Aug64

ENCL: 02

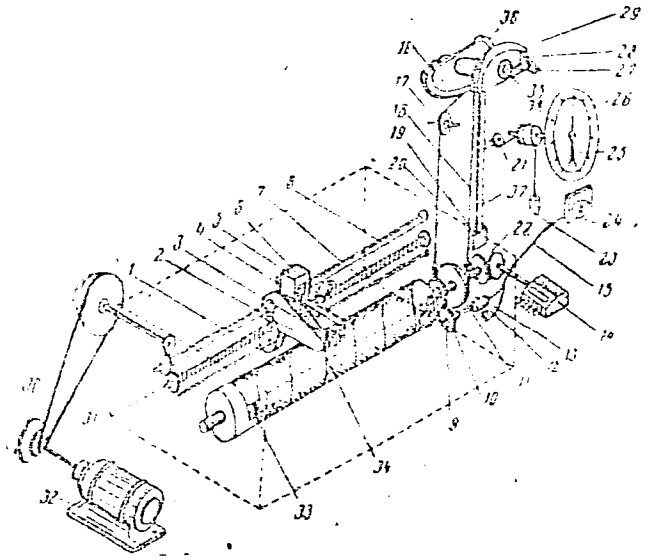
SUB CODE: [illegible]

NO REF SOV: 000

OTHER: 000

Card 2/4

L 40563-65
ACCESSION NR: AT5004104 ENCLOSURE: 01



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L 40563-65
ACCESSION NR: AT5004104 ENCLOSURE: 02

Figure 1. The MIR-1 machine for evaluating the wear resistance of rubber: 1-drum; 2-carriage; 3-sample; 4-loading device; 5-load; 6-sample heater; 7-guide screw; 8-grooved shaft; 9 and 10-gears; 11-braking wheel; 12-braking belt; 13-tachometer generator; 14-counter; 15-cable; 16-half-disc; 17-[illegible] balance weight; 20-21 block; 22-bevel gears; 23-load of the dynamometer [illegible] rw batter[illegible] 2-dynamometer hand; 26-scale; 27-handle; 28-block [illegible] step wheel; [illegible] 2-electrometer; 33-spring in [illegible] 35-[illegible] [illegible]-balance; 38-block.

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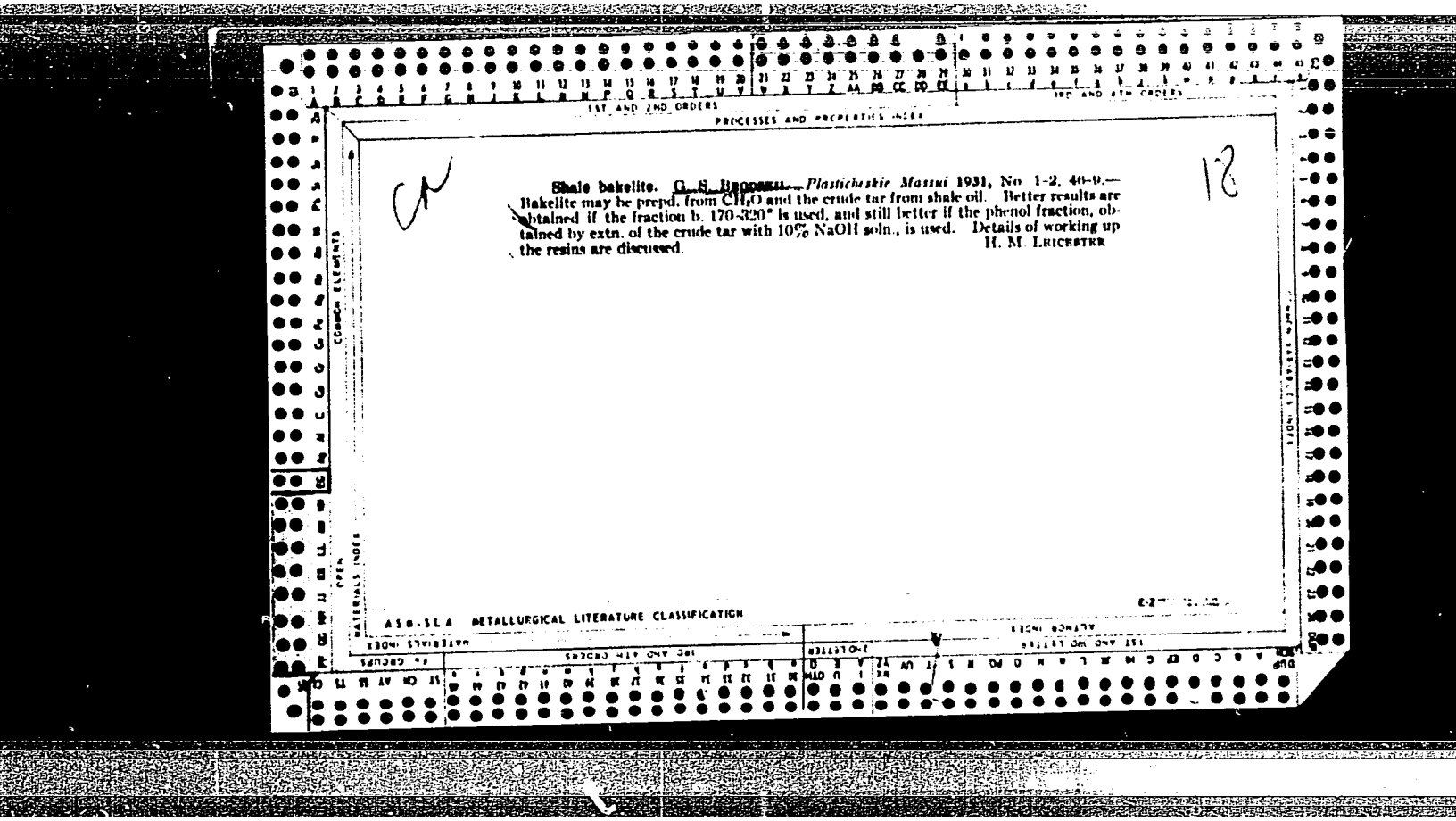
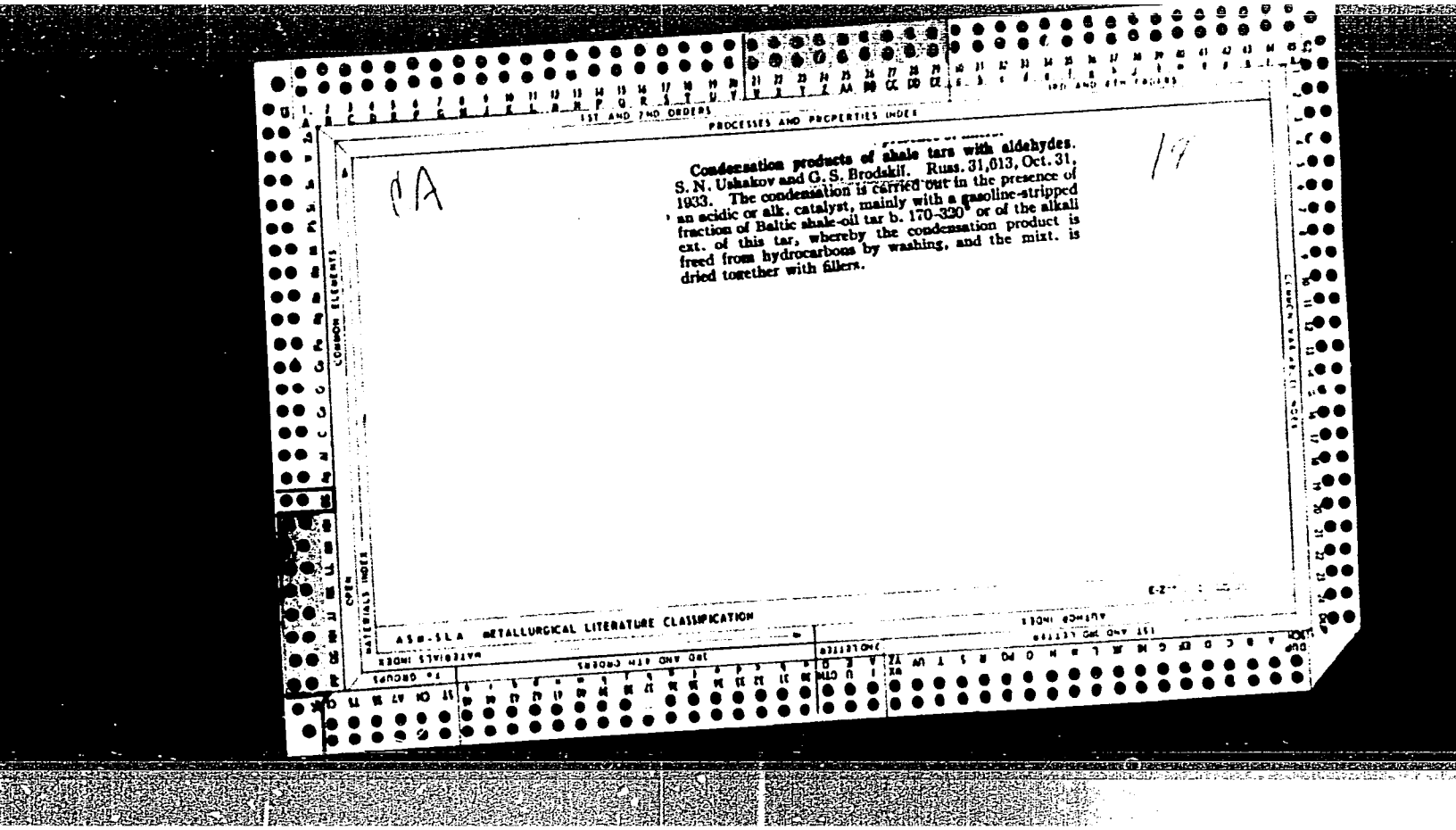
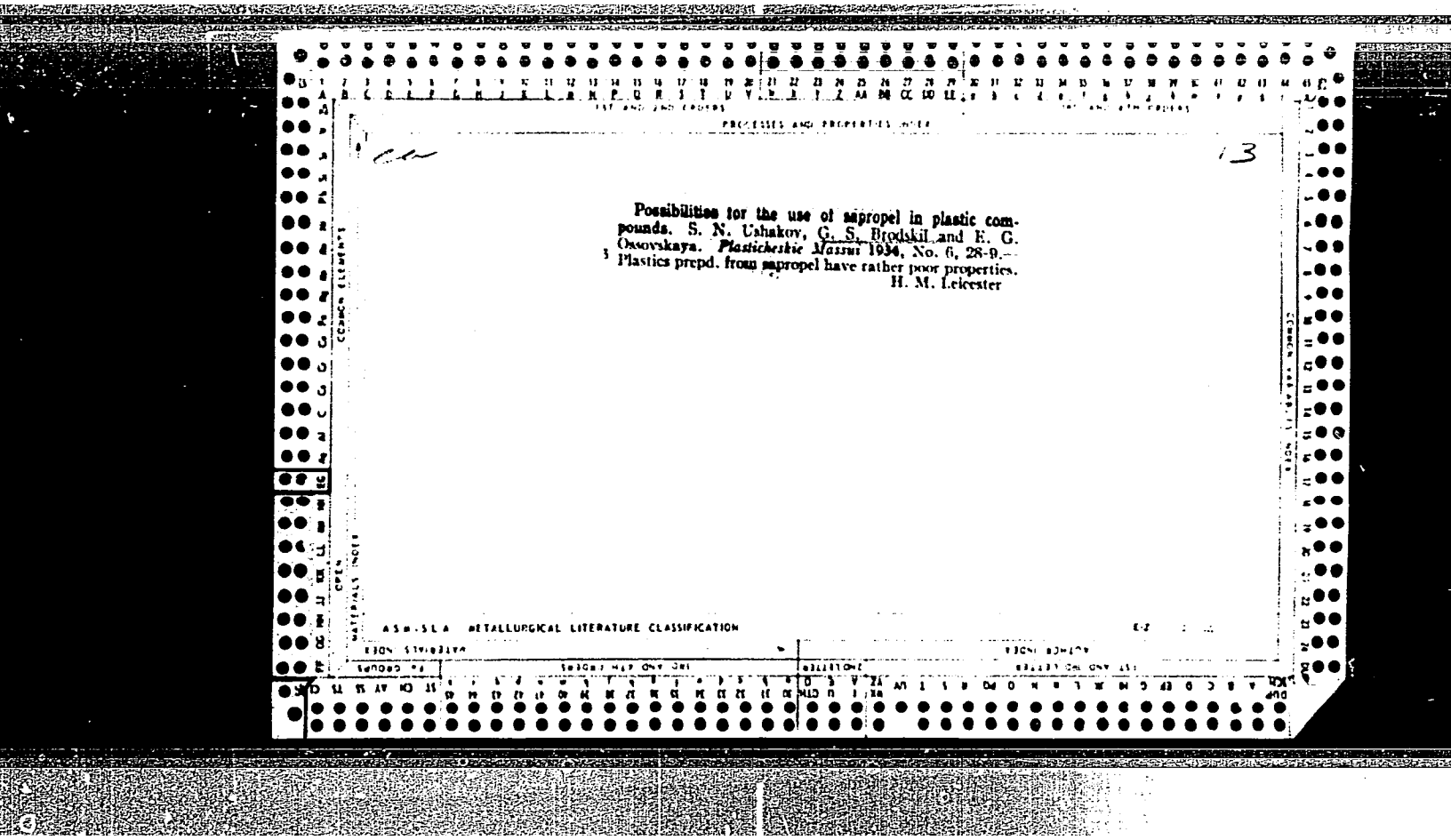


Shale bakelite. G. S. Brogunov. *Plasticheskie Massui* 1931, No. 1-2, 46-9.—Bakelite may be prepd. from CH_2O and the crude tar from shale oil. Better results are obtained if the fraction b. 170-320° is used, and still better if the phenol fraction, obtained by extn. of the crude tar with 10% NaOH soln., is used. Details of working up the resins are discussed.
H. M. Leicester

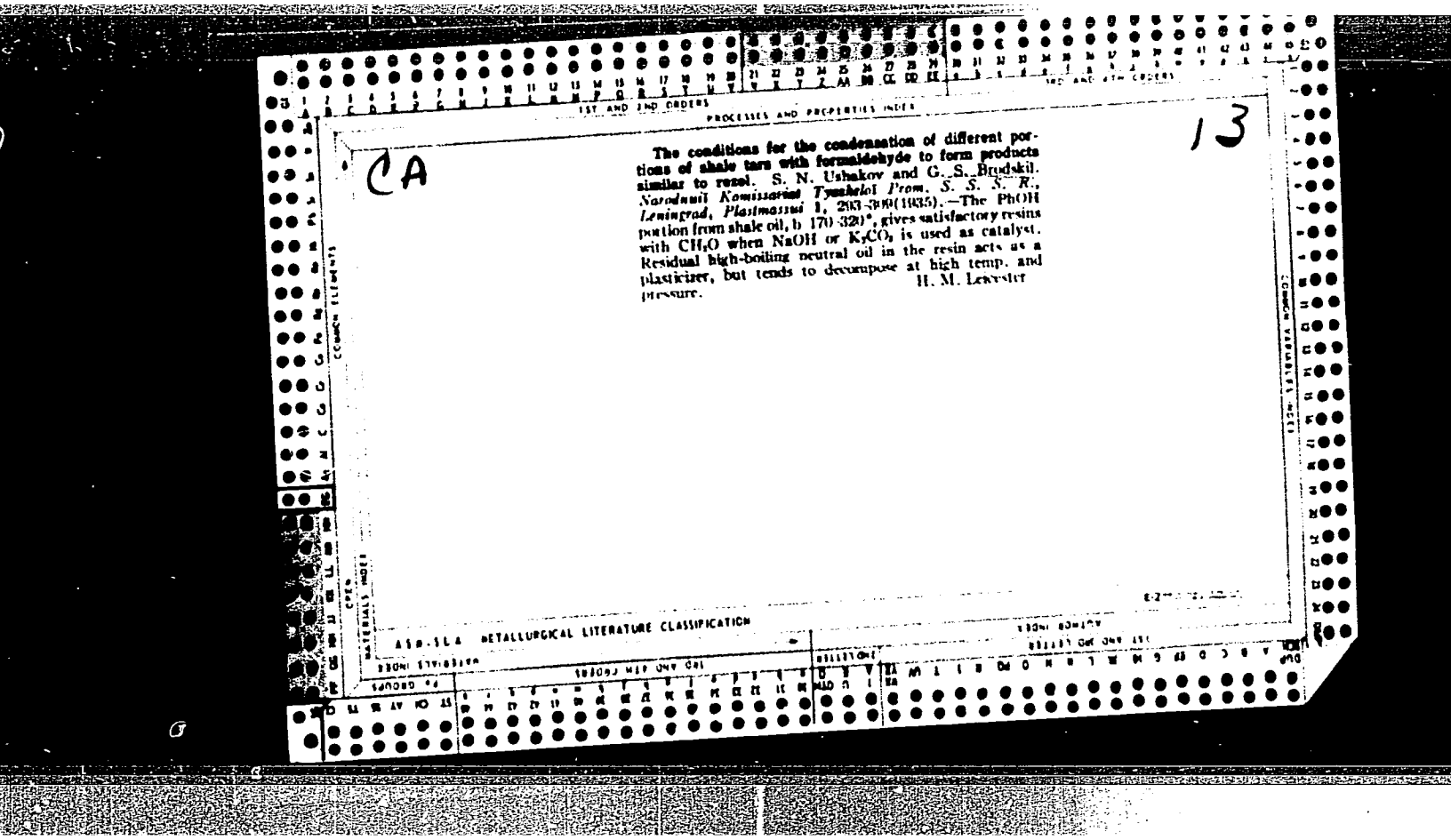
A58-SLA METALLURGICAL LITERATURE CLASSIFICATION





13

Possibilities for the use of sapropel in plastic compounds. S. N. Ushakov, G. S. Brodskii and E. G. Osovskaya. *Plasticheskie Massui* 1934, No. 6, 28-9.—Plastics prepd. from sapropel have rather poor properties.
H. M. Leicester

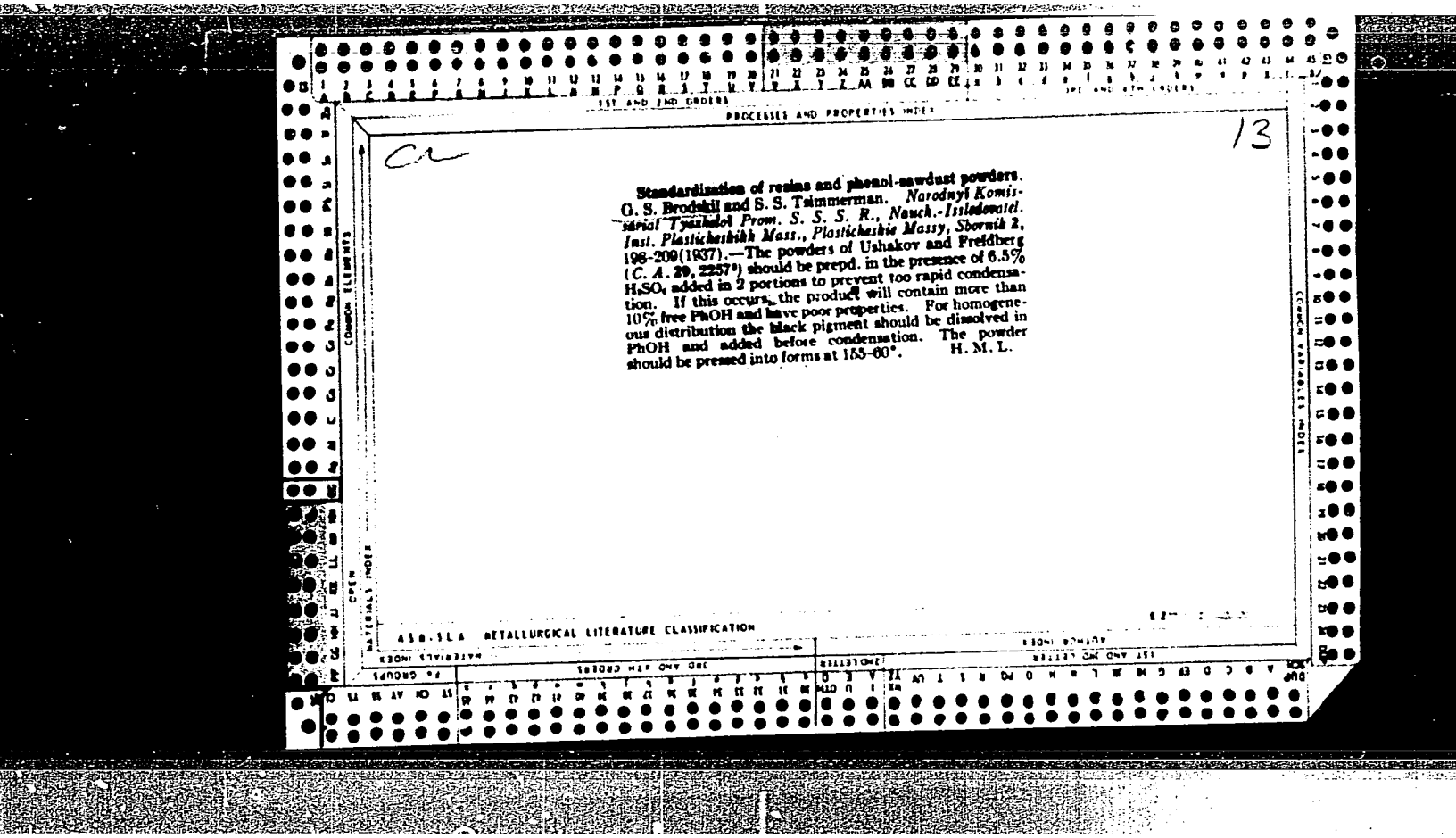


CA

13

The conditions for the condensation of different portions of shale tars with formaldehyde to form products similar to resol. S. N. Ushakov and G. S. Rudskil. *Narodnuil Komissariat Tyazhelol Prom. S. S. S. R., Leningrad, Plastmassui* 1, 203-39(1935).—The PhOH portion from shale oil, b 170-320°, gives satisfactory resins with CH_2O when NaOH or K_2CO_3 is used as catalyst. Residual high-boiling neutral oil in the resin acts as a plasticizer, but tends to decompose at high temp. and pressure.

H. M. Leicester

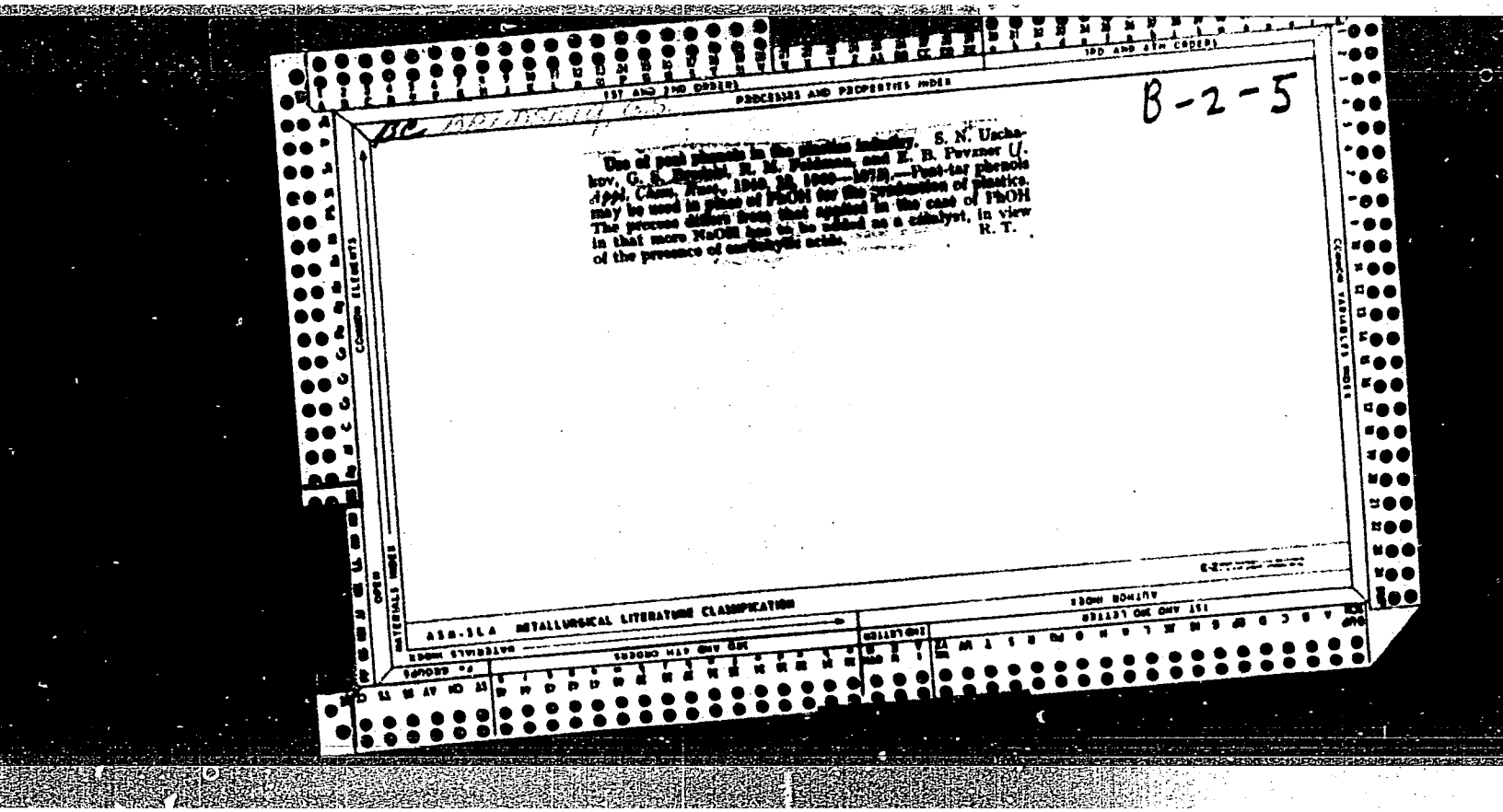


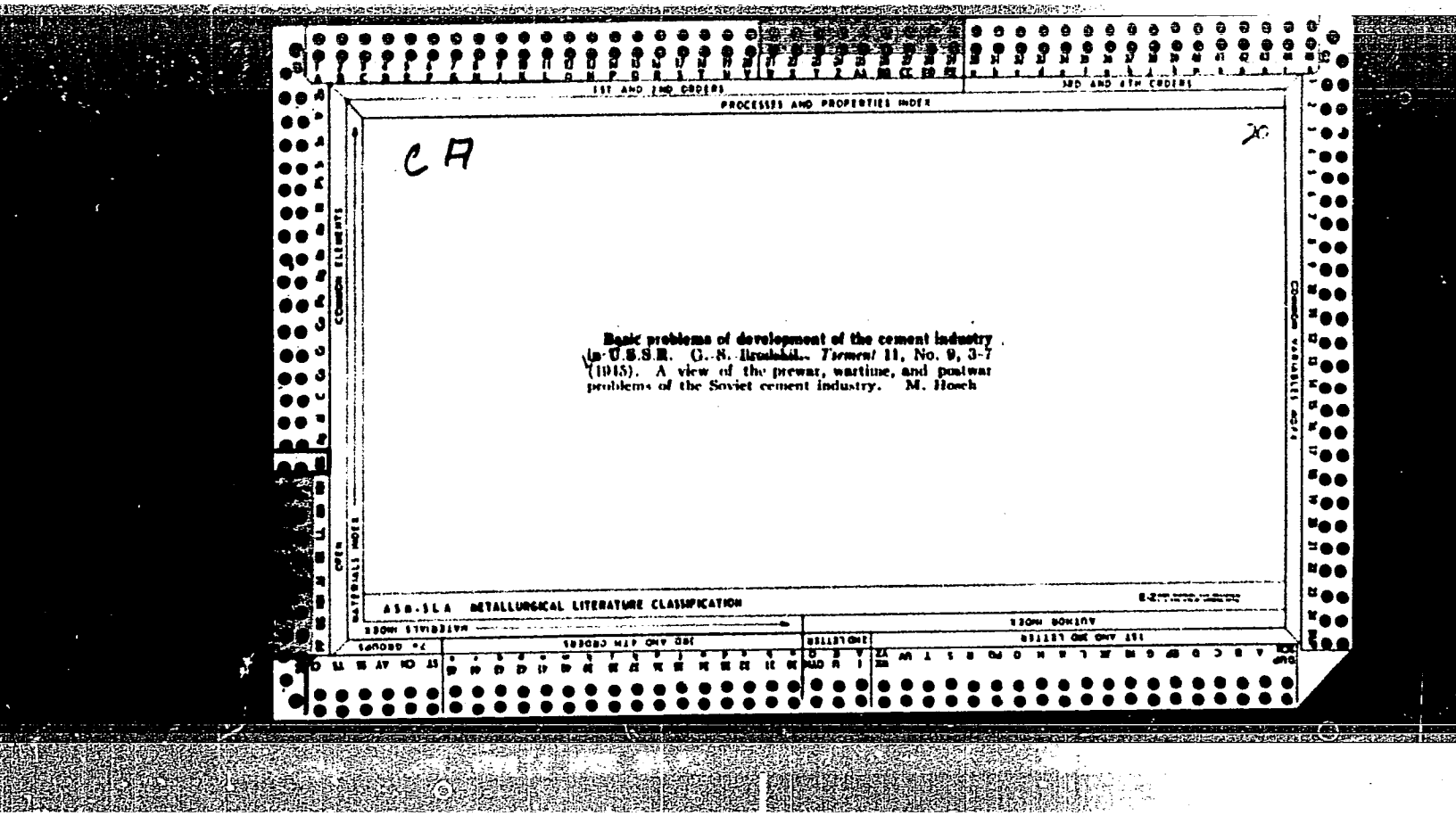
PROCESSES AND PROPERTIES INDEX

13

Standardization of resins and phenol-sawdust powders. G. S. Brodskiĭ and S. S. Tsimmerman. *Narodnyĭ Komissariat Tyazhelol Prom. S. S. S. R., Nauch.-Issledovatel. Inst. Plasticheskikh Mass., Plasticheskie Massy, Sbornik* 2, 198-209(1937).—The powders of Ushakov and Freidberg (*C. A.* **29**, 2257[9]) should be prepd. in the presence of 6.5% H_2SO_4 added in 2 portions to prevent too rapid condensation. If this occurs, the product will contain more than 10% free PhOH and have poor properties. For homogeneous distribution the black pigment should be dissolved in PhOH and added before condensation. The powder should be pressed into forms at 155-60°. H. M. L.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION





Basic problems of development of the cement industry in U.S.S.R. G. S. Ilyushkin. *Tsement* 11, No. 9, 3-7 (1945). A view of the prewar, wartime, and postwar problems of the Soviet cement industry. M. Hosch

BRODSKII, G. S.

Insoluble phenol-aldehyde resins. A. V. Kon and G. S. Brodskii. U.S.S.R. 64,710, May 31, 1945. CH$_2$O is condensed with alkylphenols obtained by the action of chlorinated light naphtha distillates on phenols obtained from the tar of peat, brown coal, or wood. The phenol-aldehyde resins thus produced are highly resistant to water and chemicals and are sol. in aliphatic and aromatic hydrocarbon oils.

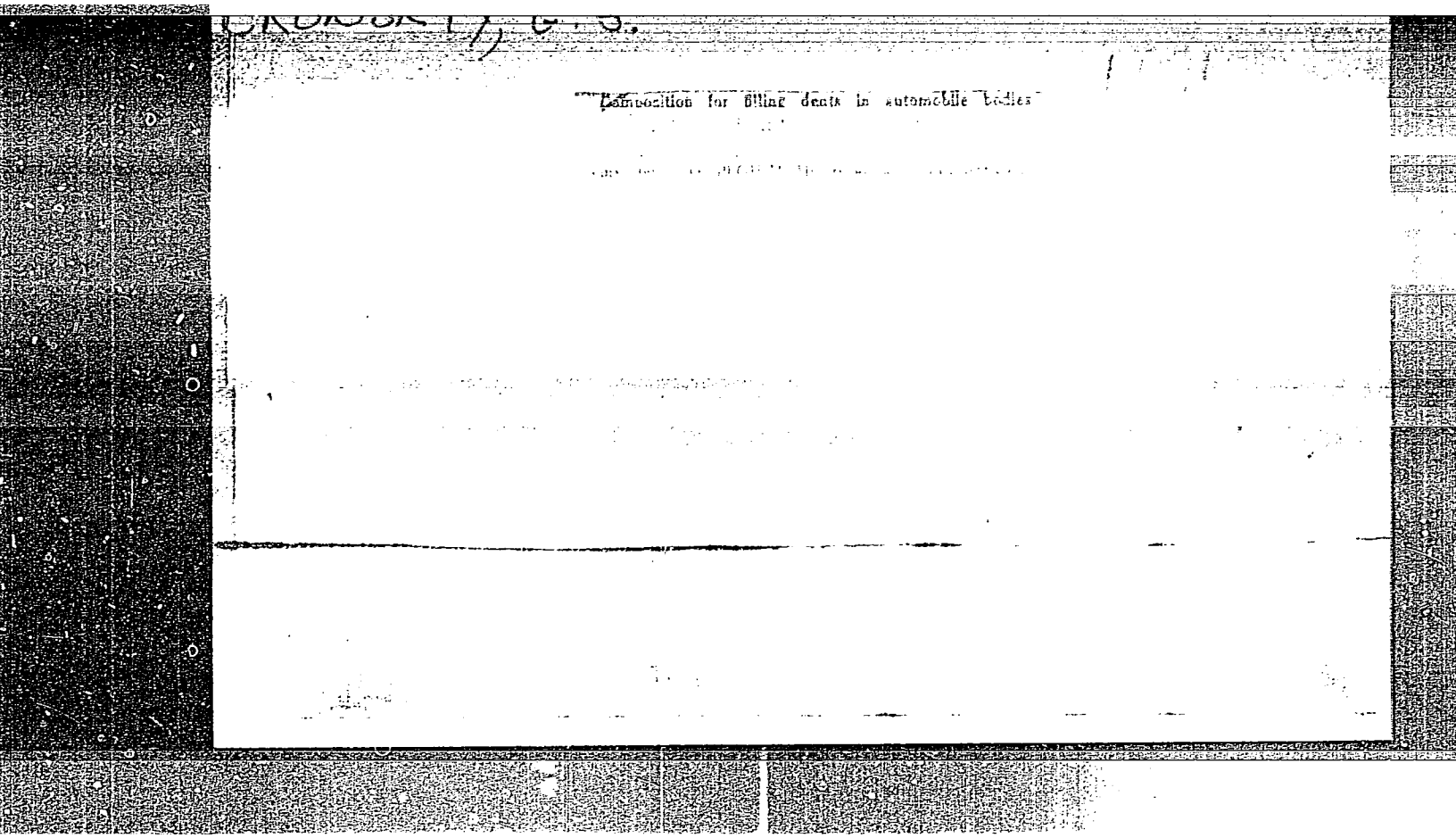
M. Hosch

They are insol. in H$_2$O and benzine.

BRODSKIY, G. S.

a paper on chemically-resistant plastics and their prospects

Presented at a conference convened by Glavkauchuk and the Leningrad section of VNITO, (VNITO Rezinshchikov). Leningrad, Goskhimizdat, 1955, pp. 143. full abstract filed under LABUTIN, A. L.



Composition for filling drain in automobile bodies

BRODSKIY, G. S., Cand Tech Sci -- (diss) "Study of thermoreactive phenol-formaldehyde-polyvinyl-butyral resins and their technical application." Mos, 1957. 19 sheets (Min of Higher Education USSR, Order of Lenin Mos Chem-Technological Inst im D. I. Mendeleyev), 100 copies. Printed by duplicating ~~process~~ machine (KL, 1-58, 117)

PETROV, G.S., prof.; BRODSKIY, G.S., inzh.

Substitutes for lead-tin solders used in the automobile industry.
Izobr. v SSSR 2 no.9:23,26 S '57. (MIRA 10:10)
(Solder and soldering)

PETROV, G.S.; RABITS, S.M.; BRODSKIY, G.S.

Highly durable materials for plastics based on rubber and formaldehyde-phenol resins. Izobr.v SSSR 2 no.10:11-12 O '57. (MIRA 10:11)

(Plastics industry) (Rubber, Synthetic) (Resins, Synthetic)

APPROVED FOR RELEASE: 08/22/2000 CIA-RDP86-00513R000307010003-7"

AUTHORS: Sokolova, A. A., Bogomolov, B. D., SOV/156 58-3-40/52
Krupkina, F. A., Brodskiy, G. S., Afanas'yeva, N. V.

TITLE: Alkaline Lignin as Initial Substance for the Production of Plastics (Shchelochnoy lignin kak syr'ye dlya proizvodstva plasticheskikh mass)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 3, pp. 556 - 558 (USSR)

ABSTRACT: Alkaline lignin represents a valuable starting material for the production of plastics, since it contains reactive groups. The authors prepared samples and determined the technical data as well as the physical and chemical properties of products of alkaline lignin. The optimum method for the production of phenol-lignin formaldehyde resin was determined. Based on investigations on the physico-chemical and electric properties of the pressed samples the following optima mixture was worked out: phenol 100 parts, lignin 100 parts, formaldehyde 17 parts, sulfuric acid 2 parts. By using this formula in the production of phenol lignin formaldehyde resins about 50% phenol and 40% formaldehyde can be saved. The stability of alkaline lignin in storing for 2 years was investigated and the results obtained

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showed that the alkaline lignin is subjected to a change of its structure, with the formation of acid groups and an increase of the oxy groups. There are 2 tables and 2 references, which are Soviet.

ASSOCIATION: Kafedra organicheskoy khimii i khimii drevesiny Arkhangel'skogo lesotekhnicheskogo instituta (Chair of Organic Chemistry and Cellulose Chemistry at the Arkhangel'sk Wood-Technical Institute)

SUBMITTED: February 15, 1958

BRODSKIY, G.S.

PHASE I BOOK EXPLOITATION SOV/4592

Moscow. Gosudarstvennyy nauchno-issledovatel'skiy institut plasticheskikh mass

Issledovaniya v oblasti termoreaktivnykh plastmass (Investigations in the Field of Thermosetting Plastics) Moscow, Goskhimizdat, 1959. 98 p. Errata slip inserted. 1,000 copies printed.

Sponsoring Agencies: Gosudarstvennyy komitet Soveta Ministrov SSSR po khimii; Gosudarstvennyy nauchno-issledovatel'skiy institut plasticheskikh mass.

Ed.: V. M. Yur'yev; Tech. Ed.: Ye. G. Shpak.

PURPOSE: This book is intended for chemical engineers and technicians, and research chemists interested in thermosetting plastics.

COVERAGE: The collection contains 11 articles which reflect some Soviet efforts and achievements in synthesizing plastics with special physicochemical properties, i.e., water-, acid-, heat-, and arc-resistance. No personalities are mentioned. References given are mainly Soviet and English, with several

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French and German and accompany the articles.

TABLE OF CONTENTS:

15.3200

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S/191/60/000/010/009/017
B004/B060

AUTHORS: Leyrikh, V. E., Antonova, I. T., Savvina, Yu. A., Fiskina, R. Ya., Brodskiy, G. S.

TITLE: Properties of Concrete With Furyl Aniline Resin Addition

PERIODICAL: Plasticheskiye massy, 1960, No. 10, pp. 38-42

TEXT: This is a report on the improvement of concrete properties by the polymerization of furyl alcohol with aniline. Aniline is added as a hydrochloride. Furyl alcohol added to the cement suspension (20%), slows down the concrete structure formation; 5% $CaCl_2$ are therefore added for an accelerator. The addition of hydrochloride of aniline is varied, depending on the desired concrete properties, between 5 and 100%, referred to furyl alcohol. The resin is formed under liberation of heat. The liquid addition is calculated by the equations generally in use for ordinary concrete. The concrete prepared from different kinds of cement and aggregates with a furyl aniline resin content was tested for its technological properties. An И -116 (I-116) vibrator served for its

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condensation. The following values of compressive strength were found for concrete with a ratio liquid : binding agent (cement plus microfiller) = 0.45: Portland cement of the Belgorodskiy zavod (Belgorod Factory) after 180 days 314 kg/cm²; Portland cement of type БТЦ (BTTs) of the Nikolayevskiy zavod (Nikolayev Factory) after 180 days 370 kg/cm², under evaporation 376 kg/cm². The resistance to impact amounted after 90 days for BTTs cement to 5.0 kg.cm/cm³, for Belgorod cement 4.5 kg.cm/cm³; (30-35% more than in ordinary concrete). The coefficient of the bond between concrete and reinforcement ranged between 0.14 and 0.20 (as against 0.10 and 0.15 in ordinary concrete). The chemical stability was tested in Tuymazy petroleum, kerosene, gasoil, mineral oil, marine water, and ground water from Devonian horizons. All samples exhibited good stability over a 6-month testing time. A test for permeability to water (at 70 atm) and A -72 (A-72) gasoline (at 20-25 atm) showed that 6-cm thick concrete remained impermeable for 10-12 days. There are 4 figures and 2 tables.

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S/191/60/000/010/012/017
B004/B060

AUTHORS: Rips, S. M., Brodskiy, G. S., Lavetskaya, A. I.

TITLE: Cooling of Phenol Formaldehyde Resins by Spraying

PERIODICAL: Plasticheskiye massy, 1960, No. 10, pp. 53-59

TEXT: The authors mention the rising production of phenol formaldehyde resins in the USSR, which brought about an enlargement of vacuum boilers from 1.5-2.0 to 5.5 m^3. Boilers with a capacity of 10 m^3 are already been planned for new plants. As compared therewith, the cooling process is lagging behind from the technical side. The following current methods of cooling the 100-130° hot novolak resin are mentioned. The resin is drained from the boiler into open vessels which are cooled by air or water. Cooling plates are used for the purpose. The hardened resin is manually removed from the vessels and is then ground. The cooling process takes 8-10 h; the manual treatment is noxious to health. The following previously suggested improvements are discussed: 1) The resin is passed through a screen, granulated in water, and conveyed to the mill by a conveyer band. 2) The resin flows onto a water-cooled disk and is

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Cooling of Phenol Formaldehyde Resins by Spraying

S/191/60/000/010/012/017
B004/B060

scratched off by means of a rotating knife. 3) The cooling vessels contain chains by means of which the hardened resin is lifted out (method of the Sverdlovskiy zavod - Sverdlovsk Plant). 4) Method by V. S. Titov and B. A. Preobrazhenskiy: The resin flows toward the ascending air through a screen in a 4-5 m high pipe. 5) Chains are passed through the collecting vessel. The resin solidified between the chain links is removed by the chain pinion. 6) Cooling on a metallic conveyer band passing through water. 7) The same on toothed rolls. 8) Blowing of resin into an air flow. In methods 1-7 grinding is always still required, while a too voluminous cotton is obtained with 8). The authors propose the following course (Fig. 13). The resin is pressed into an air-cooled tower by means of nozzles (air pressure 4-8 atm), drops onto a grinding ventilator and is separated as a fine powder in a dust catcher. Resin No. 18 was comminuted in this way. The molding powder obtained therefrom (by the method of the zavod "Karbolit" - "Karbolit" Plant) type K-18-2 (K-18-2) satisfied the requirements of ГОСТ (GOST) (measurements were made by L. D. Andrianova). The authors carried out a calculation of the technical data concerning this method and a comparison with cooling on rolls. 7 m^3 of air per kg of resin were needed. The heat capacity in roll cooling amounts to

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42 kcal/m^2.°C.h, and 180 kcal/m^2.°C.h by the spraying process. The use of rotating disks instead of nozzles is said to be inadequate, because the spraying power is too low, and cannot be made to fit the production volume, which is possible by the operation of several nozzles. There are 16 figures, 1 table, and 5 Soviet references.

Legend to Fig. 13. 1 = melting vessel, 2 = compressed air, 3 = liquid resin, 4 = compressor, 5 = nozzle, 6 = air, 7 = spraying chamber, 8 = pressure fan, 9 = dispersion rotor, 10 = electric motor, 11 = exhaustor, 12 = dust exhaust chamber, 13 = cyclone, 14 = exhaustor, 15 = place of filling, 16 = exhaust

S/191/60/000/010/012/017
B004/B060

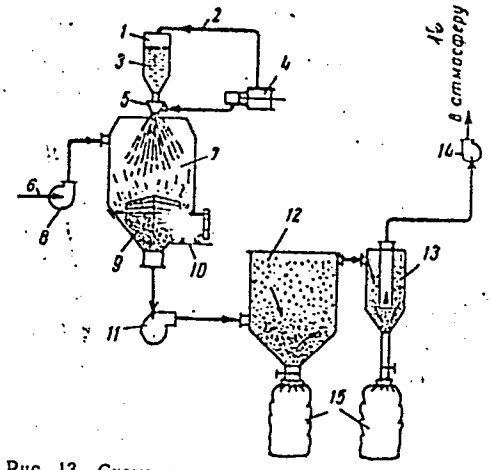

Рис. 13. Схема охлаждения и диспергирования

Card 4/4

KANNIN, Die [Cunneen, J.I.]; BRODSKIY, G.S. [translator]

Cis-transisomerization of natural polyisoprenes. Kauch.i rez. 19 no.10:59-64 O '60. (MIRA 13:10)
(Isoprene) (Isomerization)

42736

S/852/62/000/000/010/020
B136/B101

15.8130

AUTHORS: Fiskina, R. Ya., Brodskiy, G. S.

TITLE: New anticorrosive materials based on condensation products of furyl alcohol

SOURCE: Primeneniye polimerov v antikorrozionnoy tekhnike. Ed. by I. Ya. Klinov and P. G. Udyma. Moscow, Mashgiz, 1962. Vses. sovet nauchno-tekhn. obshchestv., 75-87

TEXT: A large number of furyl and furyl phenol formaldehyde resins, either pure or modified with polyvinyl acetal resin, epoxy resin, or other resins, were synthesized from furyl alcohol obtained by hydrogenation of furfurol. The furyl resin ФЛ-2 (FL-2) is soluble in alcohol-acetone mixtures but insoluble in gasoline and kerosene. The time of gelatinization is 47'20" at 160°C, and 52" at 300°C, where the resin passes over into a resite-like state. Water containing levulinic acid and traces of formaldehyde is liberated during polycondensation. The content of hydroxyl groups drops with decreasing content of free furyl alcohol. This proves that OH groups react with hydrogen at the alpha position in the first stage and that

Card 1/3

polymerization occurs at the double bonds in the second stage. FL-2 solidifies at 18 - 20°C in the presence of acid catalysts such as naphthalene sulfonic acid, Petrov's contact, p-toluene sulfonic acid, p-toluene sulfochloride, aniline hydrochloride, etc. At 150 - 160°C solidification is accelerated in the presence of boric acid, maleic acid, and other acids. FL-2 displays good impregnating properties, strong adhesion to various materials, high heat resistance, and stability against acids and lyes. A resin with a gelatinization rate of 20 - 90" at 140 - 150°C was synthesized from furyl alcohol and from a water-soluble phenol formaldehyde resin containing many methylol groups (phenol alcohols). At 80°C, the resin becomes a very mobile liquid which polymerizes rapidly. Solidification sets in even at 140 - 150°C. The resin, which was designated ФЛ(FL), displays good adhesion to metals, plastics, concrete, glass, wood, cement, etc. The furyl phenol formaldehyde resin Ф-8 (F-8) was obtained similarly. A special furyl aniline resin makes it possible to obtain concretes that are impervious to water, gas, and gasoline; the resin may

New anticorrosive materials based on ...

also form inside the concrete. Other cements mentioned are ФЛ-1 (FL-1) and ФЛ-4 (FL-4) filled with graphite; Ф-10(F-10) and Ф-9 (F-9) which are furyl phenol formaldehyde resins modified with polyvinyl acetal; Ф-7Т (F-7T) which is made from furyl phenol formaldehyde resins combined with polyvinyl acetal in a mixture of alcohol and ethyl acetate; and ФЛ-4С(FL-4S) which is a furyl phenol formaldehyde acetal resin combined with epoxy resin. The best anticorrosive properties are obtained by using hot-cured cement based on these furyl resins with graphite, microasbestos, and other fillers. The newly developed resins are stable against acids and lyes but unstable in an oxidizing atmosphere. There are 2 figures and 2 tables.

Card 3/3

UMRIKHINA, Ye.N.; BLAZHEVICH, V.A.; STAL'NOVA, M.A.; RAYEVSKAYA, V.I.; BRODSKIY, G.S.; RABINOVICH, A.B.

Use of plastics in the sealing off of the flow of stratial waters in oil wells. Plast. massy no.8:36-40 '64.
(MIRA 17:12)

L 2937-66 EWT(m)/EPF(c)/EWP(j)/T/ETC(m) WW/RM

ACCESSION NR: AP5024395 UR/0286/65/000/015/0079/0080

AUTHOR: Brodskiy, G. Sh.; Krol', M. L. S.; Krupkina, F. A.; Serapegina, O. A.

TITLE: Preparation of porous material. Class 39, No. 173401

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 79-80

TOPIC TAGS: foam plastic, resin, polyethylene, phonolformaldehyde

ABSTRACT: An Author Certificate has been issued for a preparative method for a water- and heat-resistant foamed plastic based on a formulation involving a phenol-formaldehyde resin (nonmodified or modified by furfural-acetone resin) and polyethylene. [BO]

ASSOCIATION: Nauchno-issledovatel'skiy institut plastmass (Scientific Research Institute of Plastics)

SUBMITTED: 14Aug63 ENCL: 00 SUB CODE: MT

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4108

Card 1/1

BRODSKIY, G.V

Morphological changes in congenital listeriosis. Akush.i gin. no.4:103-105 '61. (MIRA 15:5)

1. Iz laboratorii normal'noy i patologicheskoy morfologii (zav. - prof. B.V. Kulyabko) Instituta akusherstva i ginekologii (dir. - chlen-korrespondent AMN SSSR - prof. P.A. Beloshapko [deceased]) AMN SSSR
(MONONUCLEOSIS) (INFANTS (NEWBORN)--DISEASES)

BESKROVNAYA, N.I.; BRODSKIY, G.V.

Case of malignant degeneration of a paraovarian cyst. Akush. i gin. 39 no.5:151-152 S-O '63. (MIRA 17:8)

1. Iz otdeleniya operativnoy ginekologii (zav. - prof. M.V. Dubnov) i laboratorii normal'noy i patologicheskoy morfologii (zav. - prof. B.V. Kulyabko) Instituta akusherstva i ginekologii (dir. - prof. M.A. Petrov-Maslakov) AMN SSSR.

BRODSKIY, G.V.; YEGOROVA, A.P.

Effect of Listeria infection on the outcome of pregnancy and on the fetus in infected rabbits in various stages of pregnancy. Akush. i gin. 40 no.2:18-24 Mr-Ap '64.

(MIRA 17:11)

1. Bakteriologicheskaya laboratoriya (zav. A.P. Yegorova) i laboratoriya normal'noy i patologicheskoy morfologii (zav. - prof. B.V. Kulyabko) Instituta akusherstva i ginekologii (dir. - prof. M.A. Petrov-Maslakov) AMN SSSR, Leningrad.

BRODSKIY, G.Ye.

Automatic regulator for single-pipe flow-through systems in central heating. Nauch. trudy AKKH no. 18:178-188 '62. (MIRA 17:7)

1. BRODSKIY, I.

2. USSR (600)

4. Electric Current Converters.

7. Wiring diagram for a vibro-converter in an intensified KRU-2 radio network on a collective farms. Radio no. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

BRODSKIY, I.

Change the wages for workers making models. Sots. trud no.12: 98-99 D '56. (MLRA 10:2)

(Engineering models) (Wages)

BRODSKIY, I.

Normalization of the staffing of specialized research institutes. Sots. trud no.7:92-95 Jl '57. (MLRA 10:8)
(Research) (Personnel management)

L 34929-66 EWP(...)

ACC NR: AP6026634 SOURCE CODE: CZ/0034/66/000/004/0294/0294

INVENTOR: Chvorinov, N. (Engineer); Smrha, L. (Engineer); Brodsky, I. (Engineer)

23 B

ORG: none

TITLE: Shapes for steel or alloy steel casting through the bottom. Class 31c, No PV 4567-65

SOURCE: Hutnicke listy, no. 4, 1966, 294

TOPIC TAGS: metal casting, metal surface, steel

ABSTRACT: The article is a summary of Czechoslovak Patent Application Class 31c, 14, PV 4567-65, dated 17 July 65. The basis of the invention is the fact that the part of the form which contacts the molten metal is hollow. Slag forming powder is added directly in the casting shapes; the process provides ingots with improved surfaces. Orig. art. has: 1 figure. [JPRS: 36,646]

SUB CODE: 13 / SUBM DATE: none

Card 1/1 ULR

0976 2317

S/133/61/000/007/002/007
A054/A129

AUTHORS: Shmrga, Lyubomir, Brodskiy, Ivo, Engineers

TITLE: The application of exothermic mixtures and inserts in heating ingots

PERIODICAL: Stal', no. 7, 1961, 598 - 604

TEXT: In the Vitkovitskiy Metallurgical Plants (Ostrava, Abstracter's note: Czechoslovakia) exothermic mixtures were applied in heating ingots, in view of the possibility of controlling their chemical reactions, utilizing their heating capacity and preventing their effect on the chemical composition of the metal. The calculations of the economic effect of various exothermic mixes gave the following results:

	Ferro-alloy mix	Thermic mix	Exothermic mix
Amount of head crop %	8.0	5.3	5.3
Spec. consumption of the mix, kg/t	0.9	10.0	3.0

Card 1/5

The application of exothermic mixtures and...

Cost of the mix Czech. crown/t	4.05	19.40	13.90
Saving in rolled product, crown/t	9.50	17.15	22.65

The most efficient use of exothermic substances is applying them in the form of inserts (whereby the head crop is reduced from 8 to 5%). In order to prevent the formation of shrinkage cavities, the metal of the ingot head must be kept liquid by heating until the ingot solidifies. In 650 kg ingots (with 250 mm sides) this takes 16 1/2 minutes, in 3,850 kg ingots (with 580 mm sides) about 88 1/2 minutes. The exothermic inserts known hitherto - which burn much too short a time - are not suitable for heating 3,850 kg ingots; their service life is also short. A new composition was developed for this purpose, containing 20% aluminum sleet, 50% oxidizing agents, (nitrates, bases and ferro-oxides), calcined chamotte and slag, to make the mix porous, to provide heat-insulating properties and to delay reactions. As binding agents synthetic resins are applied. By increasing the aluminum content of the mixtures, the metal solidifies more quickly in the ingot head. In order to increase the effect of the exothermic mix, the dozzle should be lined with

The application of exothermic mixtures and...

a heat-insulating material, for instance with foam-chamotte. The gap between the exothermic mix and the heat-insulating layer should be filled with a porous substance permitting the gases to penetrate which are produced during the burning of the insert. To ensure an efficient and rapid heating of the steel surface from above, the following methods were tested: the dozzles of three ingots were provided with exothermic packing (at the sides), while, moreover, two packs containing ferro-silicon + sodium nitrate, each weighing 4 kg, were added on the surface in one ingot. In the dozzle of the second ingot besides the afore-mentioned chemicals 4 kg exothermic bricks were laid on the surface, with the same composition as the packing, only the ore-content was lower and in the third dozzle only exothermic bricks (5 kg) of the same composition as the packing were added. In order to prevent the carbonization of the metal by the insulating mix, the ingot surface has to be coated by sand. In the first ingot the head decreased by 1.5%, in the second by about 3%. Due to the application of ferrosilicon-containing mixes, however, the metal was enriched by C and Si on the head surface, and during shrinkage these C- and Si-enriched parts sank down in the middle of the ingot. Better results were obtained in the second ingot with a smaller amount of C and Si in the central parts. The third ingot, to which only a 5-kg pack of briquettes was added on the dozzle surface, displayed deep shrinkage cavities. Based on the tests it can be establish-

Card 3/5

The application of exothermic mixtures and...

ed that it is useful to combine the heating of the ingot head from the sides with heating from the surface. In that case a head of 4% can be obtained and no chemical change takes place in the metal. An exothermic mix consisting of 50% aluminum sleet, 35% sodium nitrate, 10% manganese peroxide and 5% calcium silicate was found to be very efficient. Exothermic heating from the sides and from above is most effective for medium-sized ingots. The exothermic heating can also be carried out using the mix in the form of bricks. The bricks suggested by the authors can be used either as a frameless dozzle or for lining the dozzle. These bricks may contain either 1) exothermic and insulating substances, reacting without explosive effects or 2) efficient exothermic additives or 3) an insulating and an exothermic layer (bricks in 2 or more layers). For all three types of bricks resins are used as binding material. The bricks can be produced by the cold, hot or combined methods. In the cold method good results are obtained when phenol-sulfonic, phosphoric and sulfuric acids are added. The refractory mix (of calcined chamotte) containing 5% resin and 0.8% phenol-sulfonic acid had a strength of 280 kg/cm^2. When the hot method is applied the resin-containing mix solidifies already during the pressing. In the combined method, which is the most productive, the solidification of the resin-containing mix is accelerated by additional drying at 300°C. After a 10-minute

Card 4/5

The application of exothermic mixtures and...

drying period the mix, containing 3.5% binding agent has a strength of 500 kg/cm^2. The consumption of exothermic substances in bricks is lower than when it is rammed into the ingot head. The exothermic bricks moreover can be produced outside the plant, they can be stored for an indefinite time and are easy to transport. The use of exothermic heating also produces a large saving. Based on a consumption of 9.1 kg/t packing (rammed), 1.82 kg/t exothermic mix and 2.7 kg/t aluminum, the price of the most expensive steels can be cut by 320 [Czechoslovakian] crowns, counting 300 crowns for the manual production of insert collars from perforated sheet. There are 8 figures and 9 references: 5 Soviet-bloc, 4 non-Soviet-bloc.

Card 5/5

BRODSKIY, I.A.

AGALINA, M.S., inzh.; AKUTIN, T.K., inzh.; APRESOV, A.M., inzh.; ARISTOV, S.S., kand. tekhn. nauk,; BELOSTOTSKIY, O.B., inzh.; BERLIN, A.Ye.,inzh.; BESSKIY, K.A., inzh.; BLYUM, A.M., inzh.; BRAUN, I.V., inzh.; BRODSKIY, I.A., inzh.; BURAKAS, A.I.,inzh.; VAYNMAN, I.Z., inzh.; VARSHAVSKIY, I.N.,inzh.; VASIL'YEVA, A.A.,inzh.; VORONIN, S.A.,inzh.; VOYTSEKHOVSKIY, L.K., inzh.; VRUBLEVSKIY, A.A.,inzh.; GERSHMAN, S.G., inzh.; GOLUBYATNIKOV, G.A.,inzh.; GOHLIN, M.Yu., inzh.; GRAMMATIKOV, A.N., inzh.; DASHEVSKIY, A.P.,inzh.;DIDKOVSKIY, I.L., inzh.; DOBROVOL'SKIY, N.L.,inzh.; DROZDOV, P.F.,kand. tekhn.nauk,; KOZLOVSKIY,A.A.,inzh.; KIRILENKO, V.G.,inzh.; KOPELYANSKIY, G.D.,kand. tekhn. nauk,; KORETSKIY, M.M.,inzh.; KUKHARCHUK, I.N.,inzh.; KUCHER, M.G.,inzh.; MERZLYAK, M.V.,inzh.; MIRONOV, V.V.,inzh.; NOVITSKIY, G.V.,inzh.; PADUN, N.M.,inzh.; PANKRAT'YEV, N.B., inzh.; PARKHOMENKO, V.I.,kand. biol. nauk,; PINSKIY, Ye.A.,inzh.; POLLUBNYY, S.A., inzh.; PORAZHENKO, F.F.,inzh.; PUZANOV, I.G.,inzh.; REDIN, I.P.inzh.; REZNIK, I.S.,kand. tekhn. nauk,; ROGOVSKIY, L.V.,inzh.; RUDERMAN, A.G.,inzh.; RYBAL'SKIY, V.I.,inzh.; SADOVNIKOV, I.S.,inzh.; SEVER'YANOV, N.N.,kand. tekhn. nauk,; SEMESHKO, A.T.,inzh.; SIMKIN, A.Kh., inzh.; SURDUTOVICH, I.N.,inzh.; TROFIMOV, V.I.,inzh.; FEFER, M.M.,inzh.; FIALKOVSKIY, A.M.,inzh.; FRISHMAN, M.S., inzh.; CHERESHNEV, V.A., inzh.; SHESTOV, B.S., inzh.; SHIFMAN, M.I., inzh.; SHUMYATSKIY, A.F.,inzh.; SHCHERBAKOV, V.I.,inzh.; STANCHENKO, I.K., otv. red.; LISHIN, G.L.,inzh.,red.; KRAVTSOV,Ye.P., inzh.,red.; GRIGOR'YEV, G.V.,red.; KAMINSKIY, D.N.,red.; KRASOVSKIY, I.P.,red.; LEYTMAN, L.Z., red.[deceased],; GUREVICH, M.S.,inzh.,red.; DANILEVSKIY, A.S.,inzh.,red.; DEMIN, A.M., inzh.,red.; KAGANOV, S.I.,inzh.,red.; KAUFMAN, B.N., kand. tekhn. nauk, red:.LISTOPADOV, N.P.,inzh.,red.; MENDELEVICH, I.R., inzh.,red.[deceased];

(continued on next card)

AGALINA, M.S.... (continued) Card 2.

PENTKOVSKIY, N.I.,inzh.,red.; ROZENBERG, B.M.,inzh.,red.; SLAVIN, D.S., inzh.,red.; FEDOROV, M.P.,inzh.,red.; TSYMBAL, A.V.,inzh.,red.; SMIRNOV, L.V., red. izd-va,; PROZOROVSKAYA, V.L., tekhn. red.

[Mining ; an encyclopedic handbook] Gornoe delo; entsiklopedicheskii spravochnik. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po ugol'noi promyshl. Vol. 3.[Organization of planning; Construction of surface buildings and structures] Organizatsiia proektirovaniia; Stroitel'stvo zdanii i sooruzhenii na poverkhnosti shakht. 1958. 497 p. (MIRA 11:12)

(Mining engineering)
(Building)

GORODNICHEV, Vasiliy Mikhaylovich; BRODSKIY, I.A., otv.red.; ZVORYKINA, L.N., red.izd-va; SHKLYAR, S.Ya., tekhn.red.

[Modern methods of controlling the swelling of rocks] Sovremennye metody bor'by s pucheniem gornykh porod. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1960. 99 p. (MIRA 13:7)

(Mining geology) (Earth movements)

SHIRAY, Yevgeniy Nikolayevich; TRUPAK, N.G., doktor tekhn. nauk, prof., retsenzent; BRODSKIY, I.A., otv. red.; PETRAKOVA, Ye.P., red. izd-va; LOMILINA, L.N., tekhn. red.; MINSKER, L.I., tekhn. red.

[Vibration method of shaft sinking in shifting sands] Vibrometod pri prokhodke stvolov shakht v plyvunakh. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1961. 99 p. (MIRA 14:11)
(Shaft sinking)

KAPUSTIN, Nikolay Georgiyevich; KVON, Sergey Syn-Guvich; BERLIN, A.Ye., inzh., retsenzent; KOVSH, B.I., inzh., retsenzent; BRODSKIY, I.A., inzh, retsenzent; CHECHKOV, L.V., ved. red.; BIRYUKOV, R.A., prof., otv. red.

[Principles of designing coal mines] Osnovy proektirovaniia ugol'nykh shakht. Moskva, Nedra, 1964. 267 p. (MIRA 18:2)

1. Vsesoyuznyy tsentral'nyy gosudarstvennyy institut po proyektirovaniyu i tekhniko-ekonomicheskim obosnovaniyam razvitiya ugol'noy promyshlennosti (for Berlin, Kovsh, Brodskiy).

BRODSKIY, I.I., inzh.; GNILENKO, B.A.; KRYUKOV, G.Ya.; MARSHAK, V.I.; KHODAK, I.Z.

Modernization of a continuous pipe-rolling mill. Mekh.i avtom. proizv. 14 no.1:24-26 Ja '60. (MIRA 13:5)
(Pipe mills)

BERDYANSKIY, M.G., inzh.; BRODSKIY, I.I., inzh.; KRYUKOV, G.Ya., inzh.; SLYUSAREV, A.N., inzh.

Automatic marking of hot pipes. Mekh.i avtom.proizv. 15 no.11: 15-18 N '61. (MIRA 14:11)

(Marking devices) (Automatic control)

S/130/60/000/011/009/011
A006/A001

AUTHORS: Berdyanskiy, M. G., Brodskiy, I. I., Voynov, V. P., Gnilenko, B. A., Grinval'd, V. A., Kryukov, G. Ya.

TITLE: Mechanization and Automation of a Core-Extractor of a Continuous Pipe Rolling Mill

PERIODICAL: Metallurg, 1960, No. 11, pp. 30-33

TEXT: Information is given on the mechanized and automated operation of a core-extractor of a continuous pipe-rolling mill including the following components: a rest (Fig. 2); an automatic trolley (Fig. 3); a core-dropping machine (Fig. 4) a pipe-extractor (Fig. 5) and a pipe-dropping machine (Fig. 6). The pipes with the cores are supplied to the rest whose jaws retain the pipes during the extraction of the cores. The opening of the jaws allows the passage of the cores only. The jaws are exchangeable depending on the diameter of the core. One or two cores may be extracted. The simultaneous extraction of two cores is performed with the aid of the automatic trolley. Two tongs with jaws are opened when contacting the cores allowing the passage of the core heads which fall upon the pawl tail and disconnect it from the protuberance on the traction hook nob.

Card 1/7

S/130/60/000/011/009/011
A006/A001

Mechanization and Automation of a Core-Extractor of a Continuous Pipe Rolling Mill

A spring puts the lever underneath the pawl to prevent its clutching with the aforementioned protuberance during extraction. Under the effect of its proper weight the hook is switched on. The tongs, brought together by a spring, clamp the core head and extraction is started. After completed extraction the tongs are opened and the core released. The trolley moves back to the rest. The cores are removed and rolled down into a cooling bath. After removal of the mandrels, the pipes are extracted from the rest and dropped into a housing. The information includes the detailed description of the automatic control system.

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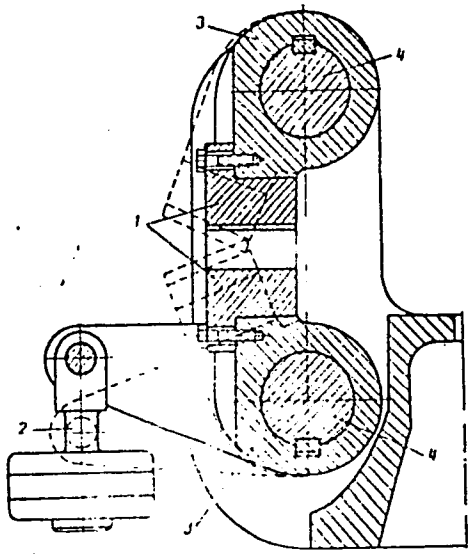
Mechanization and Automation of a Core-Extractor of a Continuous Pipe Rolling Mill

Figure 2. Rest
1 - jaws; 2 - counterweight; 3 - cams; 4 - shafts.

Figure 3. Automatic trolley
1 - tongs; 2 - jaws; 3 - pawl; 4 - tr traction hook; 5 - lever; 6 - springs; 7 - roller; 8 - roller of the dented section; 9 - rod; 10 - stem; 11 - hinge.

Figure 4. Core dropping device
1 - pneumatic cylinder; 2 - vertical cylinder; 3 and 5 - levers; 4 - stem.

Figure 5. Machine to extract the pipes from the rest
1 - pneumatic cylinder; 2 - flag.

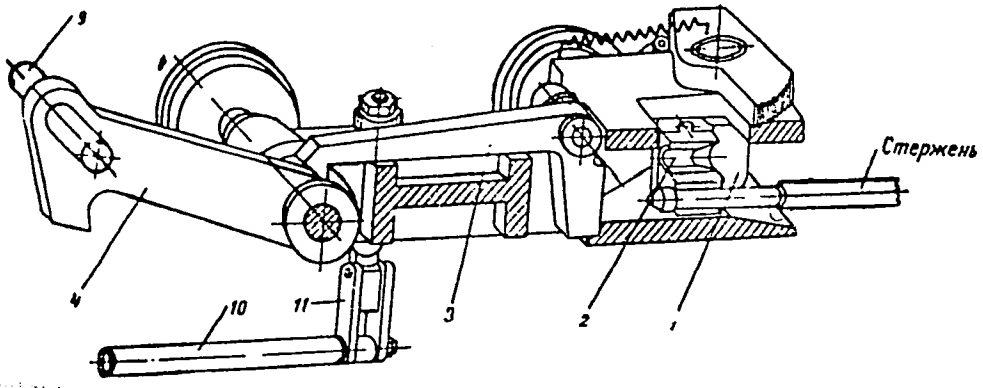


Card 3/7

S/130/60/000/011/009/011
A006/A001

Mechanization and Automation of a Core-Extractor of a Continuous Pipe Rolling Mill

Figure 3:

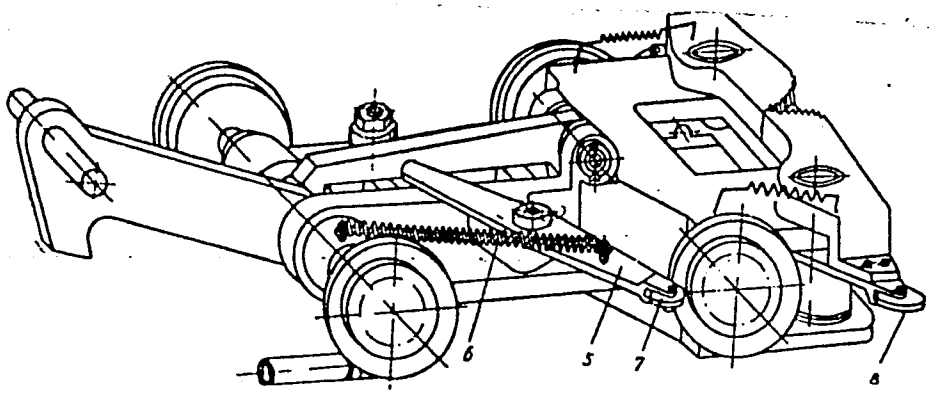


Card 4/7

S/130/60/000/011/009/011
A006/A001

Mechanization and Automation of a Core-Extractor of a Continuous Pipe Rolling Mill

Figure 3:



Card 5/7

S/130/60/000/011/009/011
A006/A001

Mechanization and Automation of a Core-Extractor of a Continuous Pipe Rolling Mill

Figure 4:

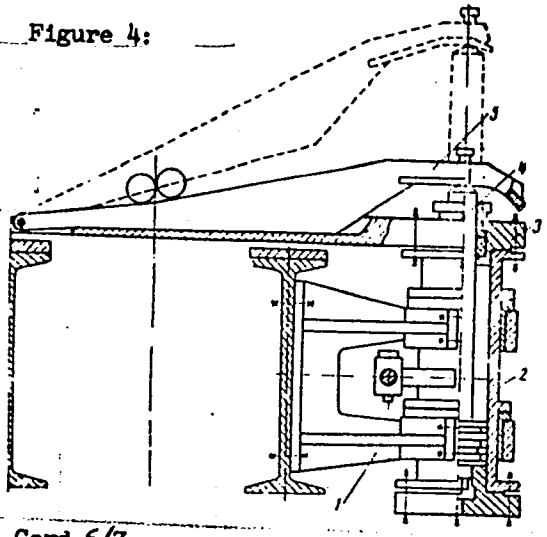
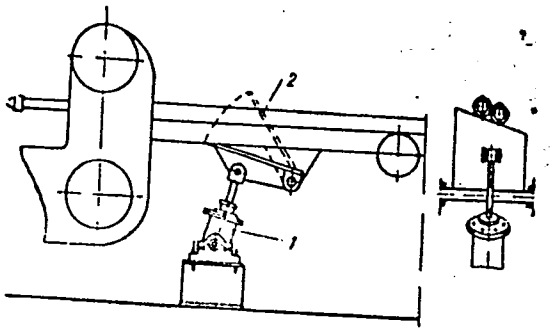


Figure 5:

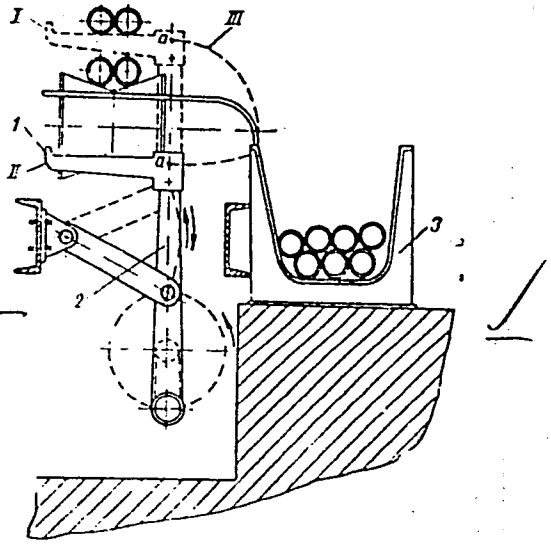


Card 6/7

S/130/60/000/011/009/011
A006/A001

Mechanization and Automation of a Core-Extractor of a Continuous Pipe Rolling Mill

Figure 6. Pipe dropping machine
1 - lever; 2 - connecting rod;
3 - housing; I and II - corresponding upper and lower position of the dropping lever; III - trajectory of point "a" during operation of the device.
There are 6 figures.



ASSOCIATION: Truboprokatnyy zavod im. V. I. Lenin (Pipe rolling Plant imeni V. I. Lenin)

Card 7/7

S/133/62/000/001/007/010
A054/A127

AUTHORS: Berdyanskiy, M. G., Brodskiy, I. I., Burakovskiy, V. N., Grinval'd, V. A., Dol'nik, T. I., Sidorenko, V. M., Engineers

TITLE: Friction-type tube pushing and turning device on the automatic tube rolling mill

PERIODICAL: Stal', no. 1, 1962, 60 - 61

TEXT: To replace the cranky pneumatic drive of the "140" automatic tube rolling mill of the zavod im. Lenina (Plant im. Lenin) by a member more suitable for the automatic process, a new pushing and turning device has been developed at the Tsentral'naya laboratoriya automatizatsii i mekhanizatsii Dnepropetrovskogo sovnarkhoza (Central Laboratory of Automation and Mechanization of the Dnepropetrovsk Sovnarkhoz) in cooperation with V. F. Veyevnik, Engineer, L. F. Kandyba, Engineer, I. P. Ivanov, Engineer, Ye. B. Byutner, Engineer, L. I. Vitnov, Technician. The new device, which consists of friction rollers, is mounted on the front table of the mill, at 4,850 mm distance from the roll axis. The mechanism pushes the tube onto the stand and turns it through 90° before the second pass. The pusher is controlled from the mill switchboard. The friction rollers are in

Card 1/ 2

Friction-type tube pushing and...

constant rotation and the distance between them is regulated by the operator via an electro-pneumatic distributor. The head part of the tube is gripped by the friction rollers when it slides down on the inclined frame and is pushed by them into the stand. The rolls then return into their initial position. When the first pass has been completed, the reversing rollers move the tube on to the front table. This time the friction rollers grip the tube, lift it and turn it over, at the same time feeding it into the stand. The new device cuts down the feed time of tube blanks (105 mm in diameter and 900 - 1,050 mm long) from 1.1 to 0.67 sec, while turning over and pushing in the tube for the second pass takes 0.9 sec. The rolling cycle was cut by 1.33 sec with the friction type feeding device. Differences in wall-thickness (longitudinal and across) of the tubes could also be eliminated, because the new pusher ensures an accurate positioning in vertical direction of the tube edge before the second pass. The mill output has increased by 5%. There are 2 figures.

Card 2/2

VATKIN, Ya. L., kand. tekhn. nauk; BERDYANSKIY, M. G., inzh.; BRODSKIY, I. I., inzh.; DRUYAN, V. M., inzh.; KOLPOVSKIY, N. M., inzh.; KAGARLITSKIY, A. S., inzh.; LUDENSKIY, A. M., inzh.

Fixed mandrels on automatic mills. Nauch. trudy. DMI no.48: 174-185 '62. (MIRA 15:10)

(Pipe mills)

BERDYANSKIY, M.G.; CHUS, V.G.; BRODSKIY, I.I.; VEYEVNIK, V.F.; VITNOV, L.I.; GRINVAL'D, V.A.; TOLDAYEV, A.S.

Automatic machine for screwing unions. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 17 no.12:27-29 D '64. (MIRA 18:3)

VATKIN, Ya.L., doktor tekhn. nauk; BERDYANSKIY, M.G., inzh.; BRODSKIY, I.I., inzh.; DOL'NIK, T.I., inzh.; KOSTYUCHENKO, V.I., inzh.; TOLDAYEV, A.S. inzh.

Regulator of the longitudinal wall thickness variation in pipe. Stal' 24 no.9:832-833 S '64. (MIRA 17:10)

1. Dnepropetrovskiy metallurgicheskiy institut i TSentral'naya laboratoriya avtomatizatsii i mekhanizatsii Pridneprovskogo soveta narodnogo khozyaystva.

BERDYANSKIY, M.G.; BRODSKIY, I.I.; DONETS, V.V.; VEYEVNIK, V.F.

Mechanism for introducing dry lubrication into the pipe shell before entering the rolling mill. Metallurg 10 no.6:28-30 Je '65. (MIRA 18:6)

AP6025579 (N) SOURCE CODE: UR/0413/66/000/013/0009/0010

INVENTOR: Berdyanskiy, M. G.; Burakovskiy, V. N.; Brodskiy, I. I.; Kas'yan, V. Kh.; Pozin, Ya. M.; Savkin, P. V.

ORG: None

TITLE: Multiple-draft mill for drawing pipe on a short mandrel. Class 7, No. 183168 [announced by the Dnepropetrovsk Pipe Rolling Plant imeni Lenin (Dnepropetrovskiy truboprokatnyy zavod)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 9-10

TOPIC TAGS: metal drawing, pipe, reliability

ABSTRACT: This Author's Certificate introduces: 1. A multiple-draft mill for drawing pipe on a short mandrel. The unit consists of a truck with a drive, unloaders, a stand with draw plate, a receiving table with troughs and a unit for setting the rods along with the mandrels into tubes. Operational reliability is improved and servicing is simplified by mounting the rods on a common movable truck and equipping them with spring compensators. 2. A modification of this device equipped with a lever mechanism for each drawing unit for clamping tubes, and a screw arrangement for moving the support.

Card 1/2

UDC: 621.774.372.002.5

1-main drive; 2-pull chain;
6-lubricator; 7-receiving table;
mechanisms; 9-rods; 10-springs

SUB CODE: 13/ SUBM DATE: 21Sep64

Card 2/2

BRODSKIY, I.L.

Strengthening contractual discipline in the textile industry. Tekst. prom. 23 no.10:40-44 O '63. (MIRA 17:1)

1. Starshiy arbitr Upravleniya sherstyanoy i shelkovoy promyshlennosti Moskovskogo soveta narodnogo khozyaystva.

BRODSKIY, I.M.

Consolidation of wire broadcasting in the Stanislav Province. Vest. sviazi 22 no.11:15-16 N '62. (MIRA 16:12)

1. Glavnyy inzh. Stanislavskoy direktsii radiotranslyatsionnoy seti.

BRODSKIY, I.M.

Establishment of duplex conference communications in industrial administrations (work practices of the communication workers of the Ivano-Frankovsk Province). Vest. sviazi 24 no.10:21-22 O '64. (MIRA 17:12)

1. Glavnyy inzh. Ivano-Frankovskoy dvustoronney gruppovoy telefonnoy svyazi.

BRODSKIY, I.M., inzh.

Supervisory and signal equipment of the 2 PES-4.5 power sets having ND-9 petroleum motors and used at power stations of radio centers. Trudy Sekt.radiofik. i VRS Ukr. NTORiE no.3:21-22 '56. (MIRA 12:1)

(Radio--Equipment and supplies)

KOSTROMIN, V.G.; FEDOSOV, V.A.; BRODSKIY, I.S.

Model workshop. Mashinostroitel' no.8:30-32 Ag '65.
(MIRA 18:11)

BRODSKIY, I.U.

Automatic regulation of the thickness of a cold rolled strip.
Biul.tekh.-ekon.inform. no.5:10-12 '60. (MIRA 14:3)
(Rolling(Metalwork))
(Electronic control)

PEREGUDOV, N.P.; BRODSKIY, I.U.

Automatic switching to three lines of a hot-rolling mill. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch. i tekh.inform. no.4:7-9 '62. (MIRA 15:7)

(Rolling Mills)

BRODSKIY, I.U., inzh.

Automatic stopping of a reversing mill. Mekh.i avtom.proizv. 17 no.11:5-6 N '63. (MIRA 17:4)

89819

28.1100 1132, 1068

S/193/60/000/005/003/012
A004/A001

AUTHOR: Brodskiy, I.Y.

TITLE: Automatic Gage Control During the Cold-Rolling of Strip

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, 1960, No. 5, pp. 10 - 12

TEXT: The Leningradskiy staleprokatnyy zavod (Leningrad Steel Rolling Mill) in cooperation with the Tsentral'naya laboratoriya avtomatiki (Central Laboratory of Automation) and the Leningradskiy politekhnicheskiy institut (Leningrad Polytechnic Institute) has developed systems of automatic gage control for the cold-rolling of strips on four-high and twelve-high reversing cold-rolling mills. The roughing operation is carried out on the 4/222 four-high mill. The initial material is hot-rolled strip of 3-3.5 mm thickness. The minimum end gage is 0.5 mm with ± 0.05 mm allowance. This strip is the initial product for the cold-rolling of a 0.08-0.10 mm strip with an allowance of ± 10 μ. The author points out that the flying micrometers used as pickups in both control systems and mounted at some distance from the rolls cause a lag of the acting signal in the control system, which leads to an "overadjustment" of the strip gage. If, e.g. the strip thickness exceeds the given standard, the motors of the pressure device act on the

Card 1/ 3

Automatic Gage Control During the Cold-Rolling of Strip

rolls which are drawn together, so that the strip gage is being reduced gradually. When the standard strip gage is attained the micrometer still shows some positive deviation, but if the micrometer shows the standard thickness the actual strip gage is already below standard, i.e, that the former deviation has been "over-adjusted". A far greater accuracy and improved quality control is effected by the time-pulse control system used on the reversing four-high cold-rolling mill. With the aid of a scale on the micrometer the required gage is set, while any deviation from the given thickness, through an electron relay pulse generator, is signalled to an electron amplifier, then passed to the electromotor amplifier, thus acting on the pressure device motors. An analysis of the operation of the automatic system proves that the strip gage can be better controlled than is the case with manual control. Thus, e.g. if 08 grade strip is rolled with manual gage control the root-mean-square error is 12 μ, while it is only 9 μ with automatic gage control. The best results are obtained with carbon and other hard strips which have considerable and frequent thickness fluctuations. Manual gage control with these strip grades results in fluctuations from -40 to +40 μ, while automatic gage control caused these deviations to decrease to 20-25 μ. Higher precision standards are required for the automatic gage control of strips worked

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Automatic Gage Control During the Cold-Rolling of Strip A004/A001

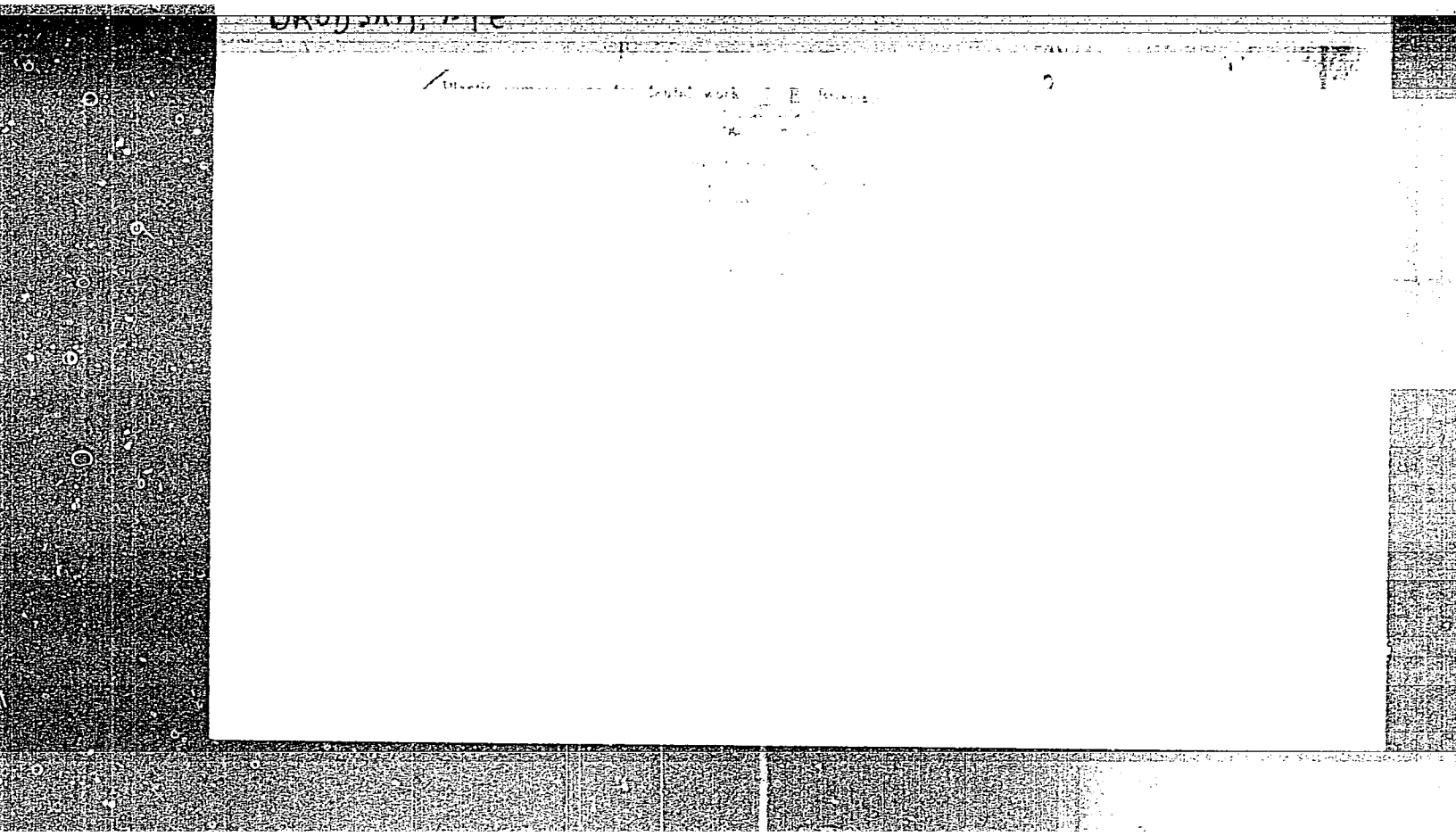
on the twelve-high mill since these strips are much thinner and have lower allowances. One of the main difficulties is the selection of the right play in the roll displacement system, which takes 2.5 seconds. Since the rolling speed on this mill is 5 m/sec, more than 12 m of non-controlled strip have passed before the play has been selected, which, of course, affects the strip quality. To obtain a higher control accuracy the system provides for an automatic effect simultaneously on the pressure device and the outgoing strip tension system. The front micrometer affects changes in the roll gap setting, while the rear micrometer, by way of varying the current of the rear coiler motor, changes the outgoing strip tension. Thus with deviations in thickness up to 3-4 μ gage control is effected by variations of the outgoing strip tension while deviations of 5 μ or more are compensated for by changing the roll gap setting. Radioactive non-contact MTI - 495 (ITU-495) micrometers are used as pickups. The operation principle of the device is based on the dependence of the degree of beta-ray absorption of the radioactive isotope on the thickness of the material being measured. An ionization chamber serves as recording device of the quantity of passing radioactive rays. The device has two ionization chambers: one for operation and the second for compensation. Tests of this automatic gage control system showed that errors do not exceed 6-7 μ at a gage tolerance of 10 μ for 0.1 mm size strip.

Card 3/3

BRODSKIY, I.Ye., inzhener; ROFE, A.E., kandidat meditsinskikh nauk.

"AKR-P" plastic material and possibilities of its practical use in dental orthopedics. Stomatologiia no.5:53-54 S-O '55. (MLRA 9:2)

1. Iz Khar'kovskogo zavoda zubovrachebnykh materialov (dir. Ye.G. Aronov)
(GUMS AND RESINS, SYNTHETIC) (DENTAL PROSTHESIS)



BRODSKIY, I.Ye.

Highly dispersed polymethylmethacrylate as a plastic for the medical supplies industry. Med. prom. 12 no.10:46-47 O '58 (MIRA 11:11)

1. Khar'kovskiy zavod zubovrachebnykh materialov.
(METHACRYLIC ACID)

05710

S/081/60/000/018/006/009
A006/A001

15.8105

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 18, p. 543, # 75438

AUTHORS: Yukhnovskiy, G. L., Brodskiy, I. Ye.

TITLE: Inhibition of Emulsion Polymerization of Methylmethacrylate

PERIODICAL: Tr. Khar'kovsk. politekhn. in-ta, 1959, Vol. 26, No. 6, pp. 221-223

TEXT: For the purpose of reducing the intensity of the process of polymethylmethacrylate polymerization (in the presence of an initiator and emulsifier at 75 - 80°C) and of preventing the branching of the polymer chains with the formation of transverse bonds, a hydroquinone inhibitor was used as a regulator in an amount of 0.006% of the monomer weight. An investigation of the relative viscosity of polymethylmethacrylate sulutions in dichlorethane, of the specific impact toughness and yield limit in static bending of polymethylmethacrylate bars with and without admixtures of hydroquinone showed that its introduction somewhat reduced the molecular weight and the specific impact toughness of the polymer. However these changes affect only slightly the physical properties of the finished product. Moreover, the use of hydroquinone has a most favorable effect on the technological process: homogeneity increases (in respect to the screen composition)

Card 1/2

Inhibition of Emulsion Polymerization of Methylmethacrylate

as well as the yield of the commercial product; the conductance of the process is facilitated and the operational conditions of the equipment are improved.

T. Renard

Translator's note: This is the full translation of the original Russian abstract.

BROLSKIY, K. A.

"Survey of the Quantitative Distribution and Composition of the Zooplankton of the Northwestern Part of the Sea of Japan," Zool. Transactions, DAN USSR, Vol. 7, No. 1, 1941

BRODSKIY, K. A.

PA 67157

USSR/Medicine - Marine Organisms May 1948
Medicine - Plankton

"The Zoogeography of Clay in the Northwestern Part of the Pacific Ocean," K.A. Brodskiy, 4 pp

"Dok Ak Nauk SSSR, Nov Ser" Vol LX, No 6

Data presented is the result of hydrographic surveys conducted in the summer of 1946 to study the characteristics of deep-water planktor from the northwestern parts of the Pacific Ocean. Submitted by Academician L.S. Berg 19 Mar 1948.

67157

BRODSKII, K. A.

42202. BRODSKIY, K. A. - Asimmetriya i svobodnozhivushchikh veslonogikh rachkov (Calanoida) Kak priznak spetsializatsii. Doklady Akad. nauk SSSR, Novaya seriya, T. LXIII, No. 4, 1948. c. 451-53.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948

BRODSKIY, K. A.

FA 39/49T68

USSR/Medicine - Plankton
Medicine - Marine Organisms

Mar 49

"The Vertical Distribution of Copepodous Crayfish (Calanoida) and the Connection of the Northern Arctic Ocean With the Pacific and Atlantic Oceans," K. A. Brodskiy, 4 pp

"Dok Ak Nauk SSSR" Vol LXV, No 3

Compares number of zooplankton forms found at various levels in northwest section of Pacific Ocean, in Sea of Japan, and in central section of North Arctic Ocean. Tables and graphs show vertical distribution of forms for Pacific Ocean, western shore of Greenland, Sea of Japan, and

[redacted]

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USSR/Medicine (Contd)

Mar 49

and North Arctic Ocean. Data introduced may serve as an index of vertical water circulation, which is closely linked with plankton circulation. Submitted by Acad L. S. Berg, 28 Jan 49.

[redacted]

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